

Claims

[c1] What is claimed is:

1. A control circuit for preventing equipment from being damaged by voltage sag comprising:
a turn-on button;
a magnetic switch comprising a winding, an normal open connection and at least one main connection, the normal open connection and the main connection electrically connecting to circuits of a main power source through a magnetic field generated by a current supplied to the winding so as to provide power to at least one equipment; and
a modular circuit comprising a rectifier and a electricity storing device, the rectifier providing a direct current (DC) to the control circuit;
wherein the electricity storing device is charged with the DC current as the DC current is conducted to the control circuit by the turn-on button of the control circuit, and is discharged to supply current to the winding as voltage sag occurs for preventing the disconnection between the normal open connection and the main connection.

[c2] 2. The control circuit of claim 1 wherein the control cir-

cuit further comprises a shutdown button for disconnecting the DC current to the control circuit.

- [c3] 3. The control circuit of claim 1 wherein the control circuit further comprises a main power source for providing alternating current (AC) to the modular circuit.
- [c4] 4. The control circuit of claim 1 wherein the electricity storing device is a capacitor.
- [c5] 5. The control circuit of claim 1 wherein the electricity storing device is a rechargeable battery.
- [c6] 6. A control circuit for preventing equipment from being damaged by voltage sag comprising:
 - a turn-on button;
 - a magnetic switch comprising a winding, an normal open connection and at least one main connection, the normal open connection and the main connection electrically connecting to circuits of a main power source through a magnetic field generated by a current supplied to the winding so as to provide power to at least one equipment; and
 - a modular circuit comprising a rectifier and a electricity storing device;wherein an AC current of the main power source is conducted to the control circuit by the turn-on button, the

electricity storing device is charged with a DC current rectified from the AC current by utilizing the rectifier, and is discharged to supply current to the winding as voltage sag occurs for preventing the disconnection between the normal open connection and the main connection.

- [c7] 7. The control circuit of claim 6 wherein the control circuit further comprises a shutdown button for disconnecting the AC current to the control circuit.
- [c8] 8. The control circuit of claim 6 wherein the electricity storing device is a capacitor.
- [c9] 9. The control circuit of claim 6 wherein the electricity storing device is a rechargeable battery.